National Aeronautics and Space Administration

Office of the Administrator Washington, DC 20546-0001



March 27, 2006

TO:

Associate Administrator for Science Mission Directorate

Director, Jet Propulsion Laboratory

FROM:

Associate Administrator

SUBJECT:

DAWN Cancellation Reclama

In October 2005, the Science Mission Directorate (SMD) initiated an independent assessment and attendant "stand down" of the DAWN project in light of technical and programmatic problems and associated cost overruns. The Independent Assessment Team (IAT) briefed its findings to the SMD Program Management Council (PMC) on January 27, 2006. Subsequently, SMD made the decision to cancel the DAWN mission on March 2, 2006.

On March 6, the Jet Propulsion Laboratory (JPL) appealed the cancellation decision and requested a review through the Office of the Administrator. Such appeals are invited and expected in cases where there are serious and unresolved differences of opinion between the institutional and programmatic chains-of-command.

The undersigned convened and chaired a review panel comprised of the Chief Engineer, the Chief of Safety and Mission Assurance, and the Assistant Administrator for Program Analysis and Evaluation. The panel met on March 23, 2006, to review the decision process, the IAT findings, and JPL's response to the IAT findings. The decision review panel did not evaluate the scientific merit of the mission.

Following are the technical and management findings:

- The most significant technical concerns (e.g., composite fuel tank qualification, ion propulsion power unit test failures, and spacecraft structural design margins) have been resolved or a credible resolution path exists.
- · Project management and contractor oversight have been strengthened through a combination of personnel and process changes.
- The projected cost overrun is in the range of 15 to 20 percent.
- · Cost uncertainty has been reduced through resolution of technical concerns, management improvements, and detailed assessments by the IAT.

- The risk posture for the DAWN project at this stage of development (integration and test) is typical for a mission of its complexity.
- \cdot Schedule estimates place the launch between June and August 2007.
- The FY 2007 President's Budget request provides sufficient funding for the projected schedule.

In light of the foregoing, and in recognition of the fact that about half of the total mission funding has been committed and spent, the review decisions are:

- The DAWN project will immediately be reinstated to a level of full funding.
- JPL will immediately restaff the project and undertake to execute its completion.
- · SMD and JPL will develop a detailed replan, including an integrated master schedule and updated cost analysis with appropriate confidence factors.
- JPL will undertake Propulsion Power Unit 500-hour life testing as soon as possible and will report progress and outcomes to SMD within 90 days.

DAWN has experienced some serious technical and programmatic issues in the course of its development, and accordingly, consideration of cancellation was justified. Reinstatement does not excuse past performance nor guarantee unequivocal future support. JPL and the DAWN project are, therefore, required to fully commit appropriate resources and management to the successful completion of this mission.

Rex D. Geveden